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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

HOANG, THAI D

ART UNIT	PAPER NUMBER
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2662

DATE MAILED: 06/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/275,934

Applicant(s)

JANOSKA ET AL.

Examiner

Thai D Hoang

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on Amendment filed on 05/28/2003.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5,7-9 and 11-21 is/are rejected.
- 7) ☒ Claim(s) 6,10,22 and 23 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other:  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claim 18 is rejected under 35 U.S.C. 102(e) as being unpatentable over Sakamoto, U.S patent No. 6,075,767.

Regarding claim 18, Sakamoto discloses a system having a redundant architecture for switchover to a line interface (figure 1). Sakamoto discloses that the system comprises the steps of selecting ingress data from data received from a first line card and a second line card, wherein selecting is based on an active select signal, wherein the active select signal determines an active line card and an inactive line card from the first and second line cards; providing the ingress data to an input of a switch core, wherein the switch core includes a plurality of

Art Unit: 2662

inputs and a plurality of outputs; receiving egress data from one of the plurality of outputs of the switch core; and selectively providing the output data to at least one of the first and second line cards based on routing information included in the egress data (figures 1,12 and 17; col. 7, line 40 - col. 8, line 67.)

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5, 7-9, 11-17, and 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakamoto, U.S patent No. 6,075,767.

Regarding claims 1 and 15, Sakamoto discloses a system having a redundant architecture for switchover to a line interface. Sakamoto discloses that the system comprises a switch core (2), wherein the switch core has a plurality of inputs and a plurality of outputs, wherein the switch core passes data received on the plurality of inputs to the plurality of outputs based on routing tags (col. 1, lines 13-17; col. 2, lines 19-22; col. 9, lines 8-11; col.13, lines 4-6); and a plurality of line card managers (3) operably coupled to the switch core (2) and adapted to couple to a plurality of line card pairs (1-1 and 1-2), wherein each line card manager includes an arbiter (9) that couples to a first line card and a second line card of a line card pair, wherein each line card manager couples to a different line card pair, wherein each arbiter is operably coupled to a corresponding input

Art Unit: 2662

of the plurality of inputs of the switch core, wherein the arbiter provides ingress data from one of the first and second line cards to the corresponding input to the switch core based on selection information (figures 1 and 17; col. 7, line 40 - col. 8, line 67.)

Sakamoto does not explicitly disclose that the line card manager (3) includes a router. However, Sakamoto discloses that the first and second line cards (1-1 and 1-2) comprise a routing function (col. 2, lines 20-22; col. 9, lines 8-11; col. 12, lines 50-55; col.13, lines 4-6), which provides egress data from the corresponding output to at least one of the first and second line cards based on routing information included in the egress data.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the routing function in the first and second line cards disclosed by Sakamoto into the line card manager in order to simplify the structure and reduce the cost of the system.

Regarding claims 2, 3, 16 and 19, Sakamoto does not disclose that each line card manager further comprises buffering circuitry operably coupled to the arbiter, wherein the buffering circuitry buffers ingress data from the first and second line cards, wherein the arbiter provides ingress data from the buffering circuitry to the switch core based on the selection information. However, buffers are used in most of telecommunications systems.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add a buffer into the system disclosed by Sakamoto in order to control data flow in the system.

Art Unit: 2662

Regarding claims 4 and 17, Sakamoto discloses that the selection information determines an active line card and an inactive line card of the line card pair, wherein the arbiter preferentially passes active line card data over inactive line card data (col. 8, lines 28-67.)

Regarding claims 5 and 21, Sakamoto discloses that the redundant line card becomes active line card when a defect or failure is detected in the first line card (col. 1, lines 48-52; col. 2, lines 27-33; col. 7, line 62 – col. 8, line 8.) inactive line card data is selected when idle data in active line card is detected.

Regarding claims 7 and 20, the system disclosed by Sakamoto inherently comprises filters operably coupled to the arbiter (9), wherein the filters pass selected data types and reject other data types in order to select useful signals (col. 8, lines 28-33, and 53-59.)

Regarding claim 8, Sakamoto discloses that the register (27) that determines the selected data types.

Regarding claim 9, the register (27) in the line card manager (3) of the system disclosed by Sakamoto inherently comprises active register and an inactive register, wherein the active register configures a filter corresponding to the active line card, and the inactive register configures a filter corresponding to the inactive line card (figures 1 and 7; col. 7, line 62 – col. 8, line 8.)

Regarding claim 11, the system disclosed by Sakamoto comprises a NxN switch core and the plurality of line cards includes 2N line cards (figures 1-4 and 17.)

Regarding claims 12-14, Sakamoto discloses that the system comprises an ATM switch; therefore, it is used in a cell based network.

***Allowable Subject Matter***

Claims 6, 10, and 22-23 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

Applicant's arguments filed on 03/28/2003 have been fully considered but they are not persuasive.

Regarding claims 18, in the remarks page 2, Applicants argue that the reference fails to disclose the step of *"selectively providing the output data to at least one of the first and second line cards based on routing information included in the egress data"*. Examiner respectfully disagrees. Applicants are directed to col. 2, lines 20-23; col. 9, lines 7-12; col. 12, lines 50-53, where the reference teaches that the input cells are forwarded to the output cards according to the information in the header of the data cells.

Regarding claims 1 and 15, in the remarks page 2, lines 14-15, Applicants argue that Sakamoto fails to disclose a router as recited in the claims 1 and 15. Examiner respectfully disagrees. Sakamoto does not explicitly disclose that the system comprises a router; however, the system disclosed by Sakamoto comprises a ATM layer processing block 21 (fig. 1), which includes a header conversion processing unit 41-1, and an internal header processing unit 42 (fig. 9) generating a routing tag necessary for the ATM switch; col. 9 lines 7-12; col. 2,

Art Unit: 2662

lines 20-23; col. 12, lines 50-53. Therefore, it implies that Sakamoto's system inherently comprises a routing function in order to generate a routing tag for transmitting data cells.

Regarding claims 2, 3, 16, and 19, Applicants argue that *"the system of Sakamoto addresses synchronization problems affecting switchover. Since buffers typically introduce some propagation delay, which would seemingly exacerbate such synchronization problems in the context of Sakamoto's system"*.

Examiner believes that this argument is not relevant because it is directed to subject matter not found in the claims.

Regarding claims 7, 9 and 20, in the remarks page 3, fourth paragraph, Applicants argue that Sakamoto does not teach any relevant filtering functionality as recited in the claims 7 and 20. Although Sakamoto does not explicitly disclose that the system comprises filters. However, one of ordinary skill in the art must understand that Sakamoto's system inherently comprises filters for filtering selected data and discarding other data.

Regarding claim 8, in the remarks page 4, first paragraph, Applicants argue that Applicants *"can find no disclosure in Sakamoto that register (27) determines selected data types as recited."* Examiner respectfully disagrees. Applicants are directed to fig. 1, col. 8, lines 9-13, where the reference teaches that the selector card 3 (card manager) comprises a register 27. The selector card 3 includes a selector for selecting either one of the streams of input cells received via the paired line interface circuits 15 and supplying the stream of input cells to an input port of the ATM switch 2, a selector control register 27 for



Art Unit: 2662

outputting a selection signal of the selector 9. Therefore, it implies that the register determines the selected data.

Regarding claim 11, in the remarks page 4, third paragraph, Applicants argue that Applicants "*can find no mention in Sakamoto of an NxN switch core and 2N line cards.*" Examiner respectfully disagrees. Applicants are directed to fig. 1-4, element 2; col. 15, lines 8-11; col. 16, lines 15-18; col. 17, lines 33-36; and col. 18, lines 55-58, where the reference teaches that the switch comprises a plurality of input and a plurality of output ports, wherein each port is coupled with two line cards 1-1 and 1-2. One of ordinary skill in the art would understand that the switch in the Sakamoto's system could be an NxN (or MxN) switch, which includes 2N line cards.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Art Unit: 2662

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thai D Hoang whose telephone number is (703) 305-3232. The examiner can normally be reached on Monday-Friday 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (703) 305-4744. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

Thai Hoang  
June 6, 2003

KWANG BIN YAO  
PRIMARY EXAMINER  
